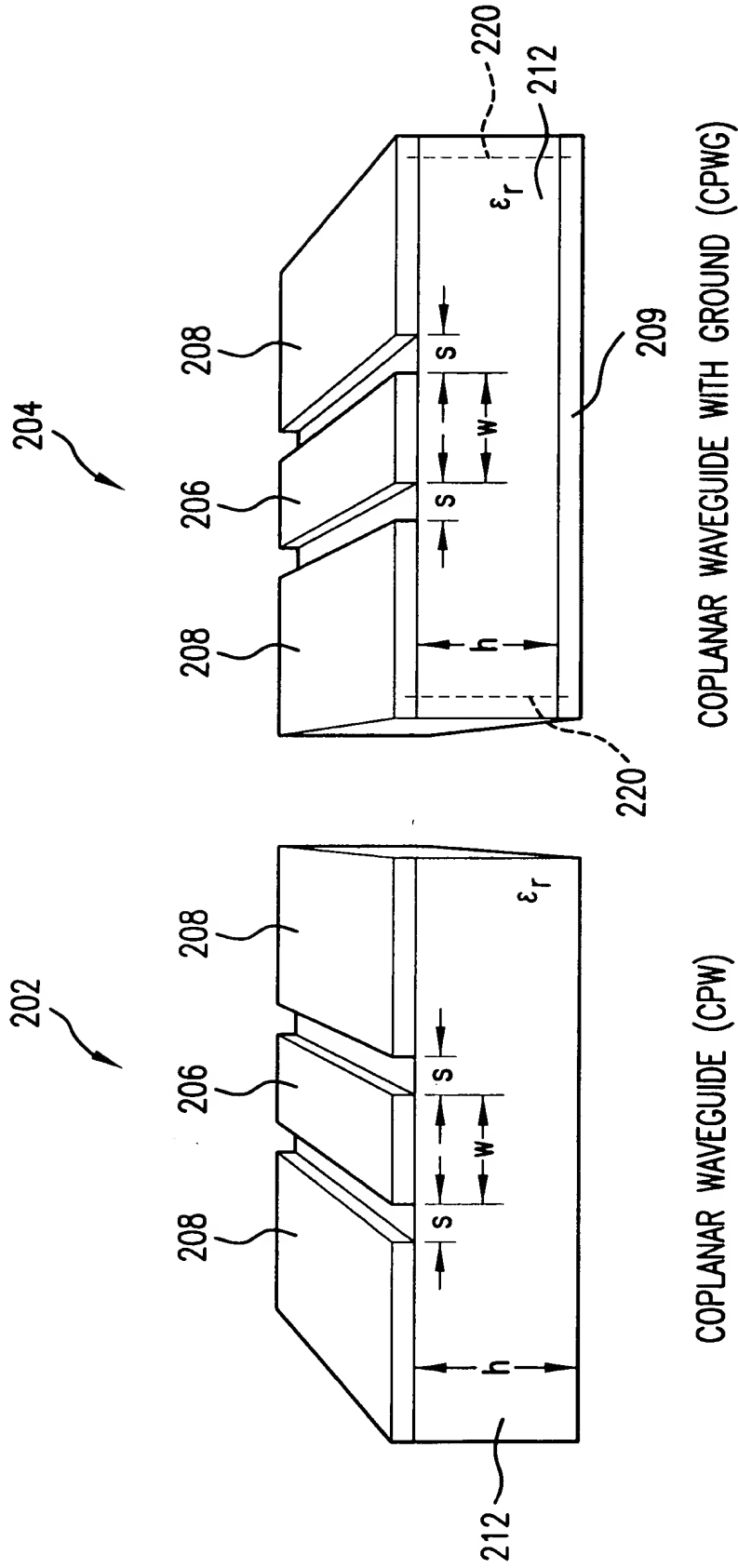


FIG. 1B
PRIOR ART





300

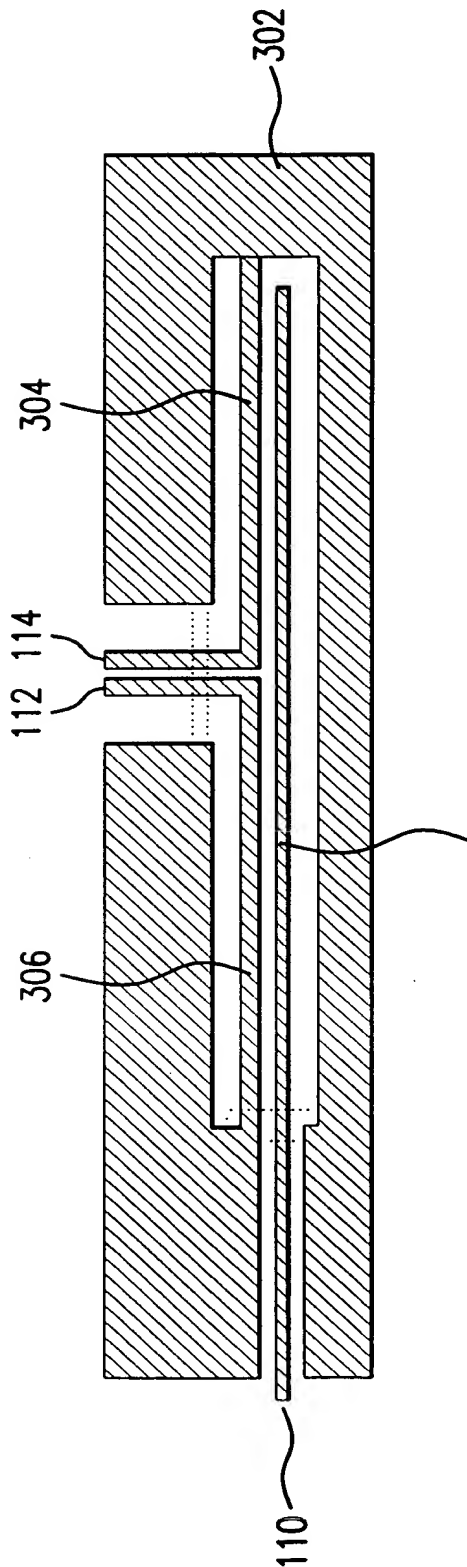


FIG. 3
PRIOR ART

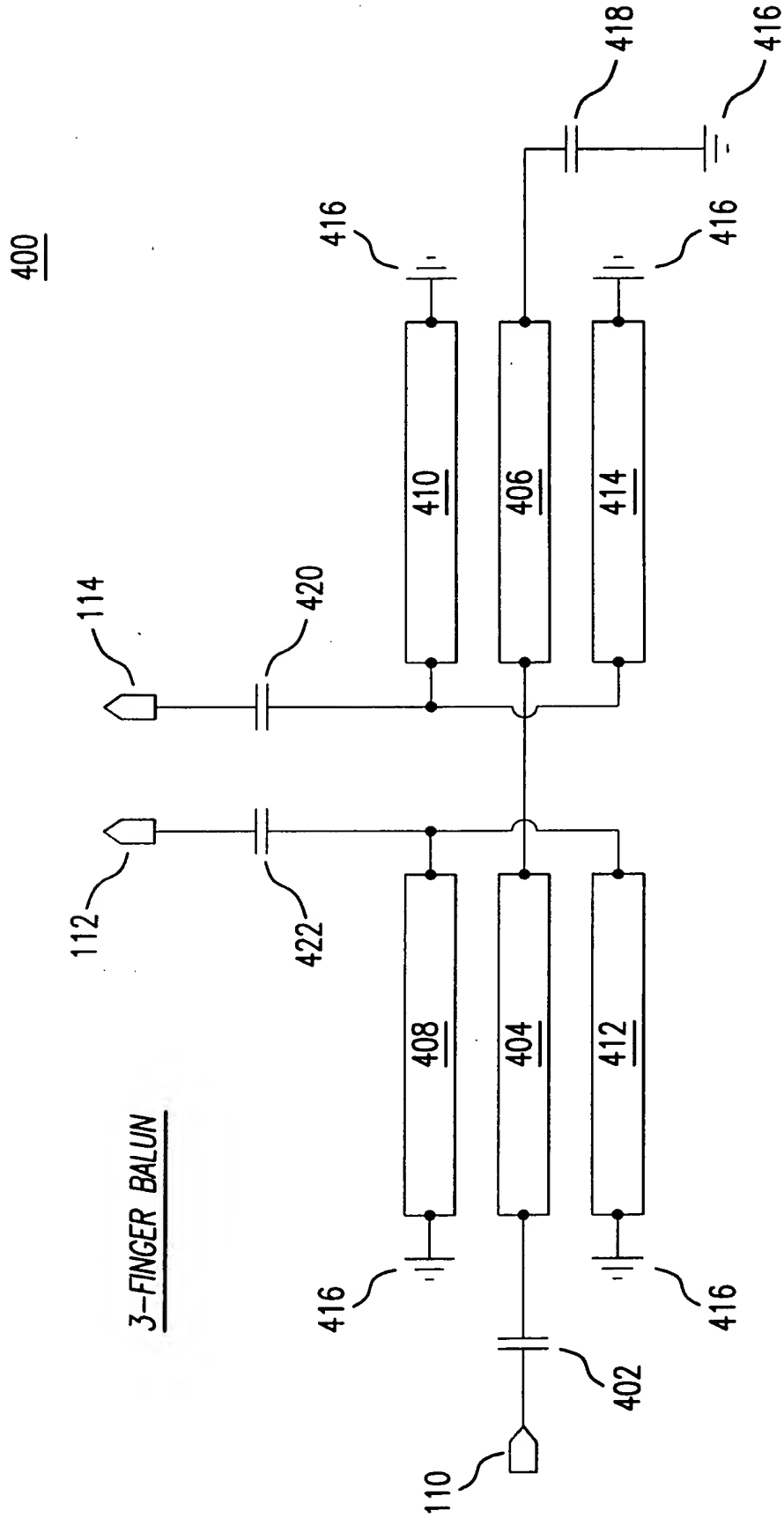
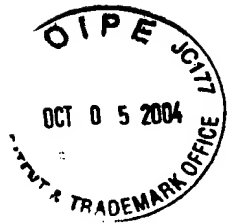


FIG. 4A



401

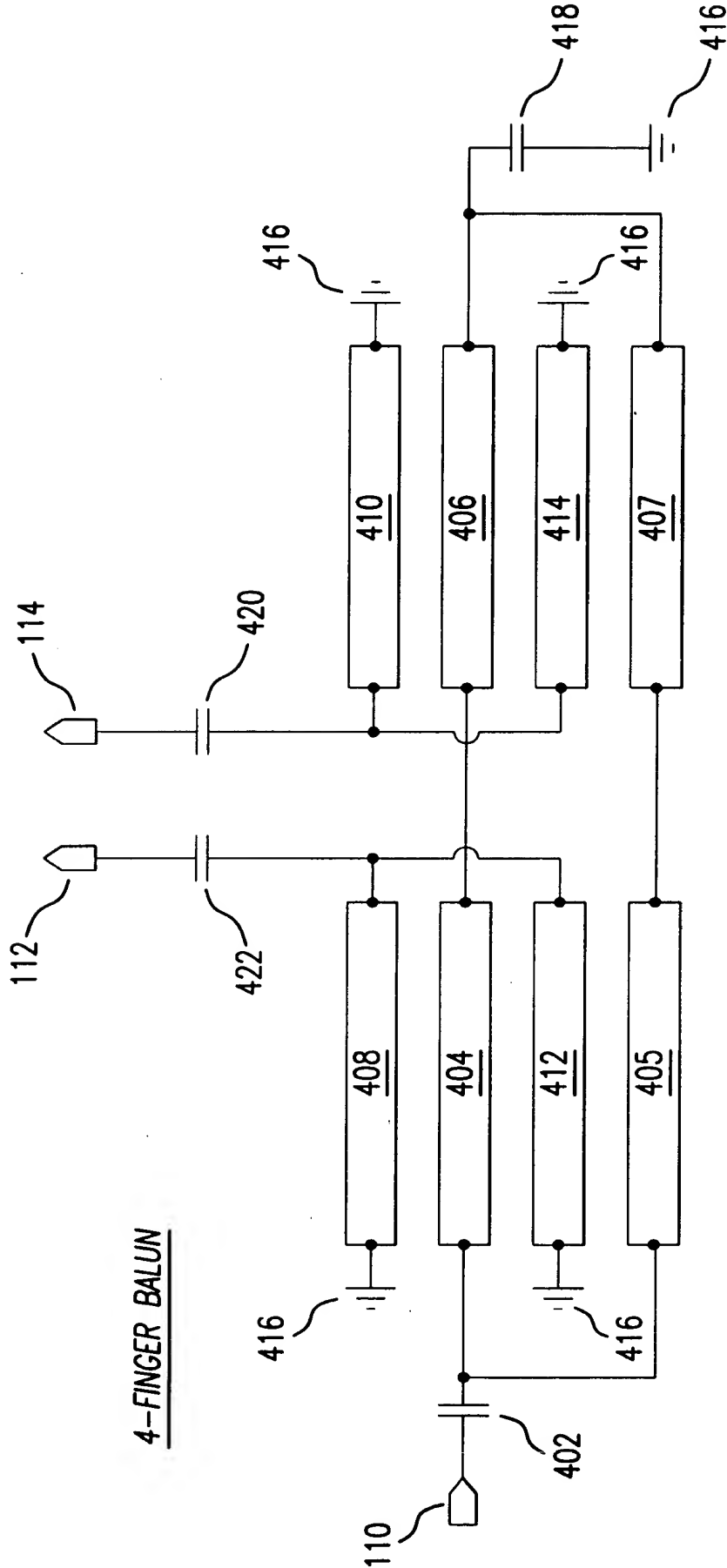


FIG. 4B

4-FINGER BALUN

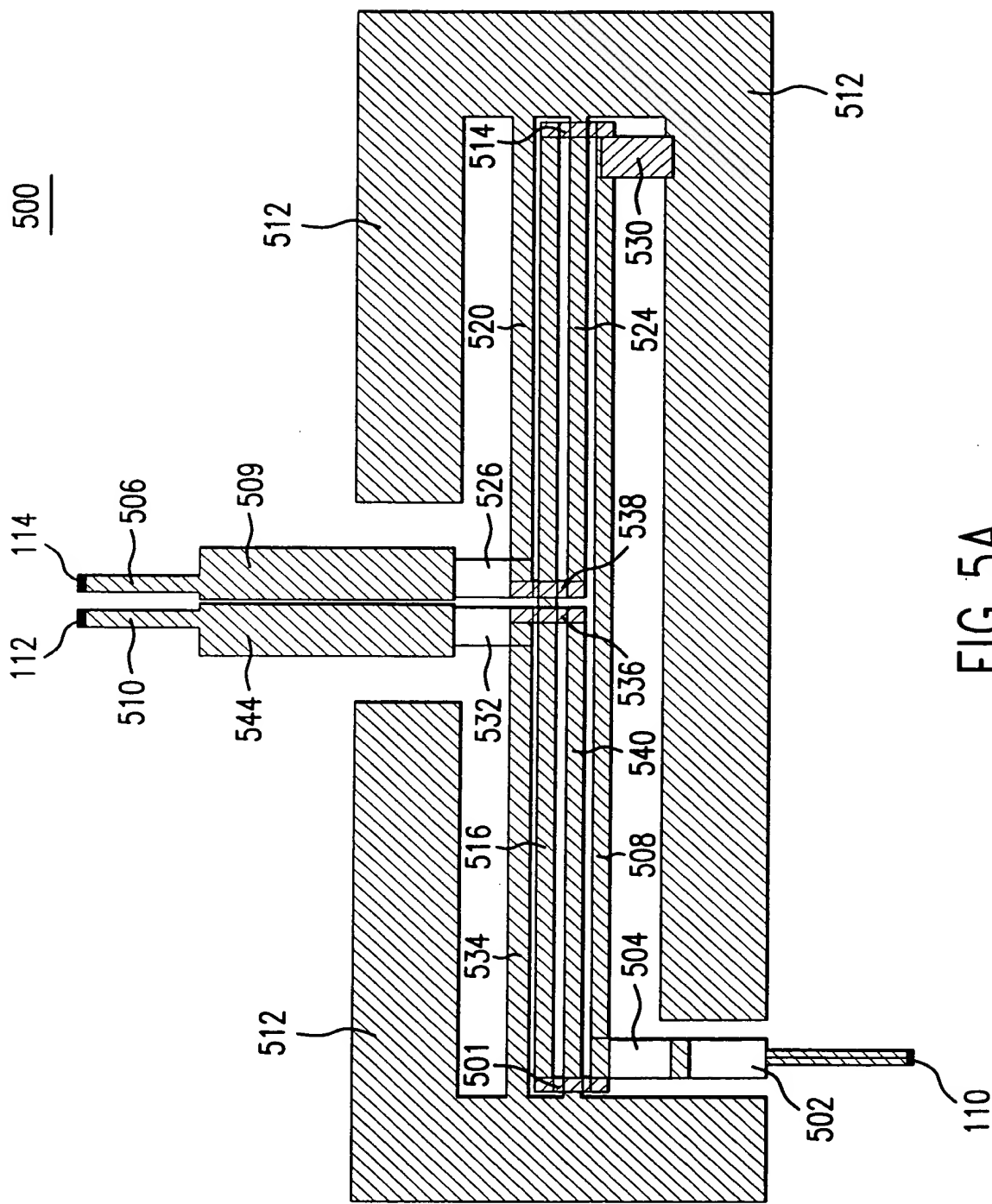


FIG. 5A

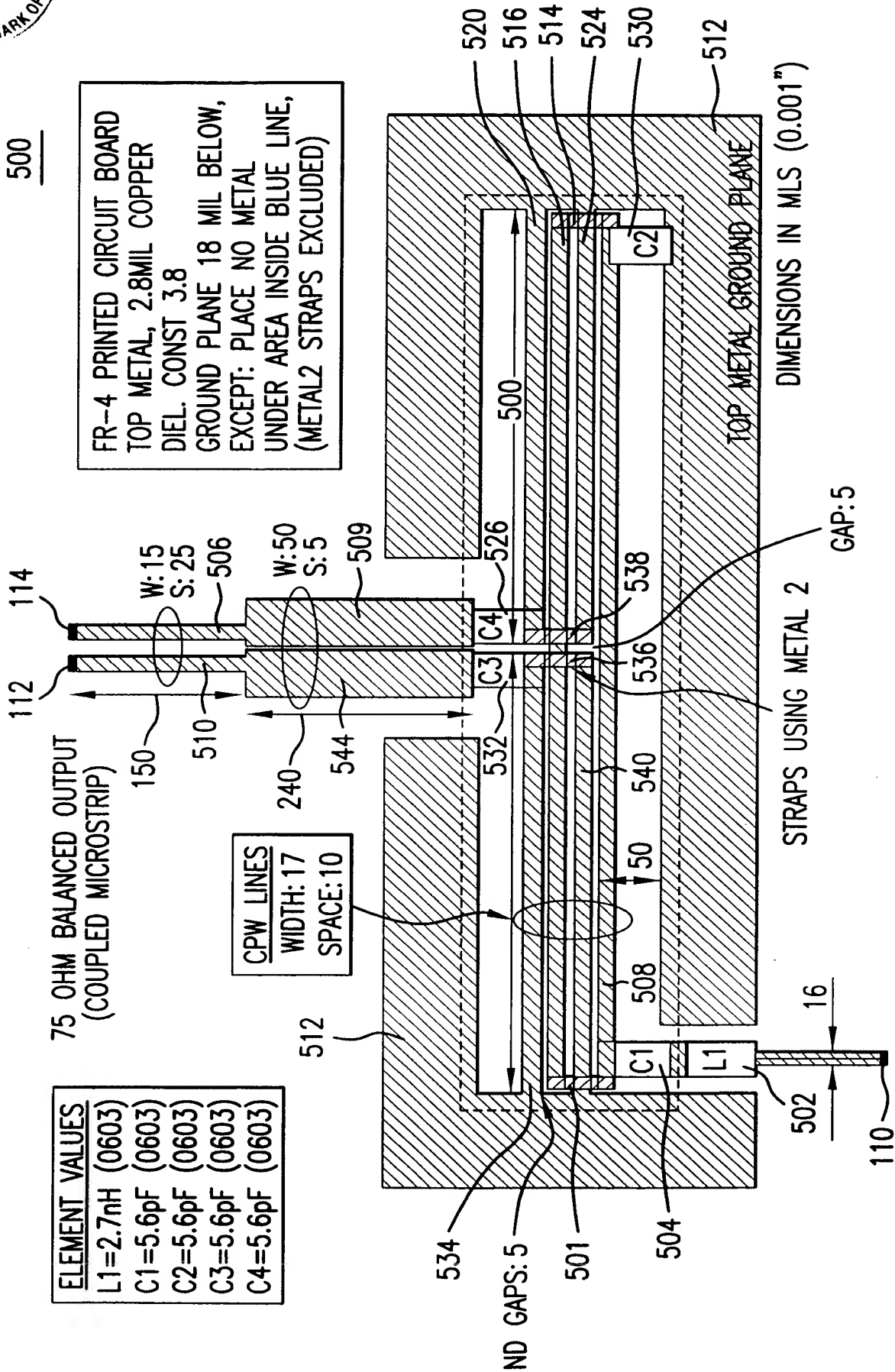


FIG. 5B

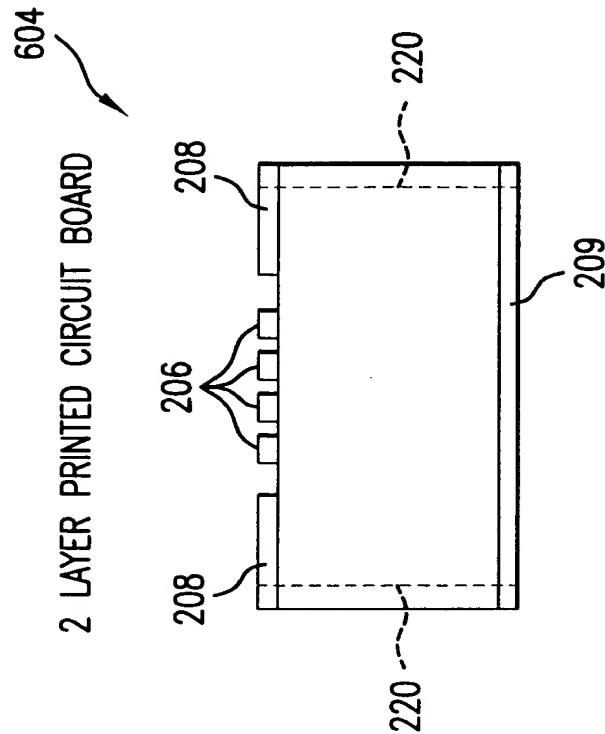


FIG. 6B

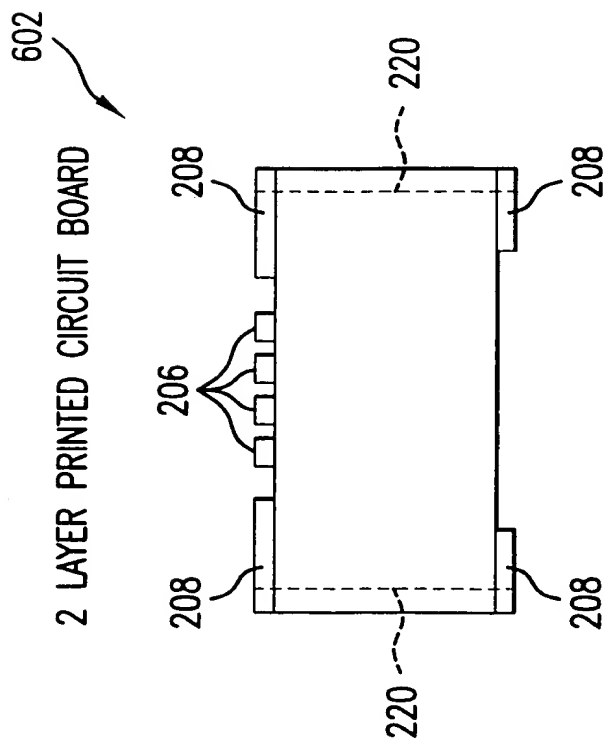


FIG. 6A

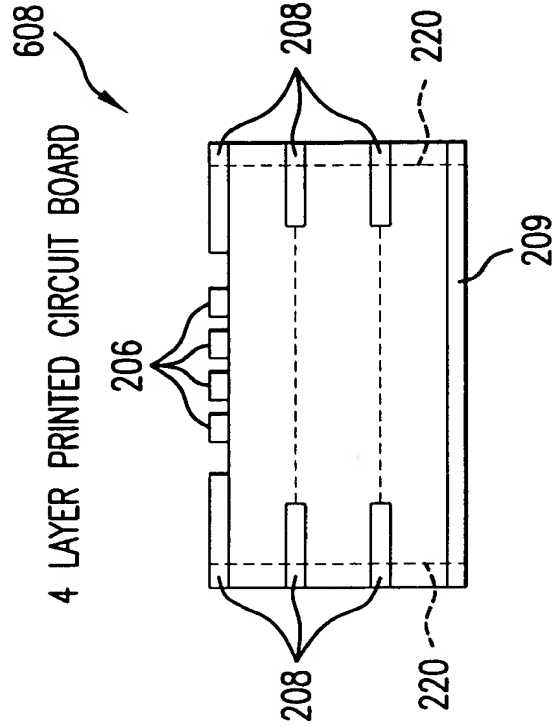


FIG. 6D

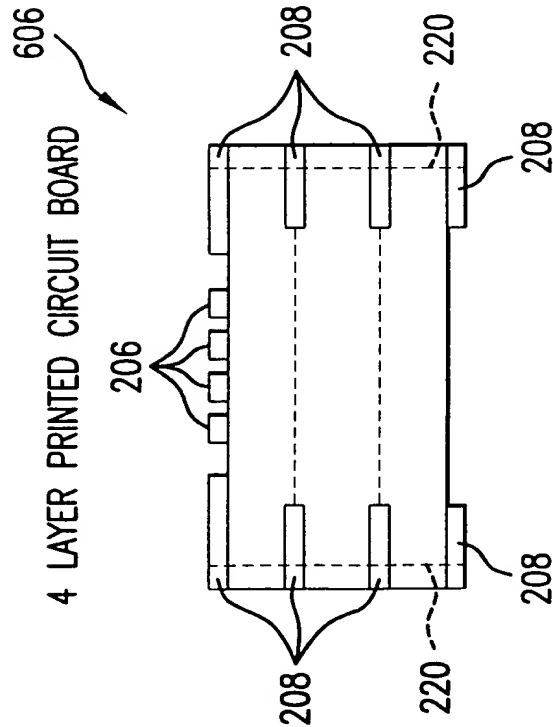


FIG. 6C

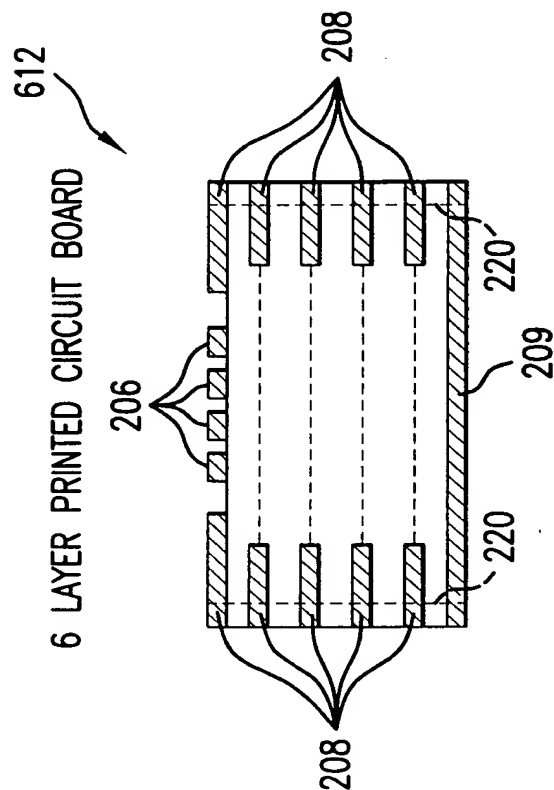


FIG. 6F

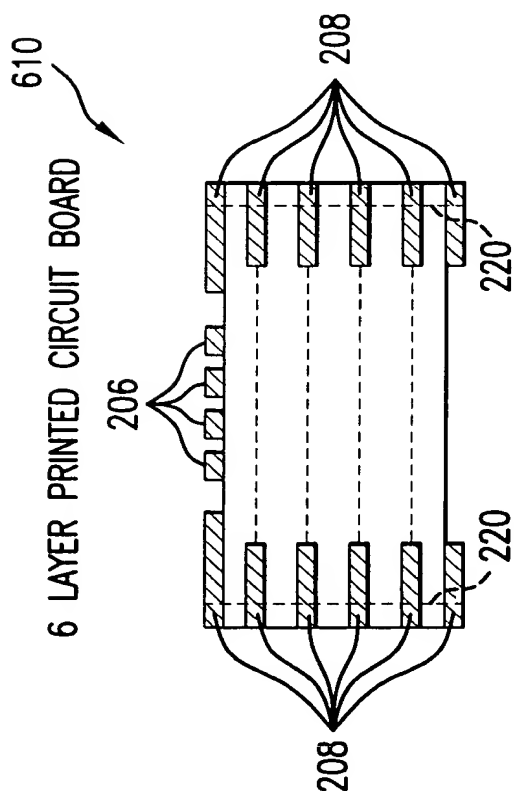


FIG. 6E

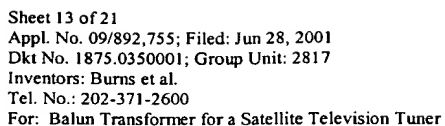


500



110 425 mils 706

112



Top plan view of a microstrip circuit layout on a substrate 512. The layout includes a balun inductor 110, a balun transformer 802, and a balun transformer 804. Dimensions are provided in mils. The balun inductor 110 has a length of 425 mils and a width of 35 mils. The balun transformer 802 has a primary winding with 7 turns (7 mils diameter) and a secondary winding with 7 turns (7 mils diameter). The balun transformer 804 has a primary winding with 7 turns (7 mils diameter) and a secondary winding with 7 turns (7 mils diameter). The layout is surrounded by a ground plane 220. A dashed box 512 indicates a portion of the layout.

FIG. 8



900

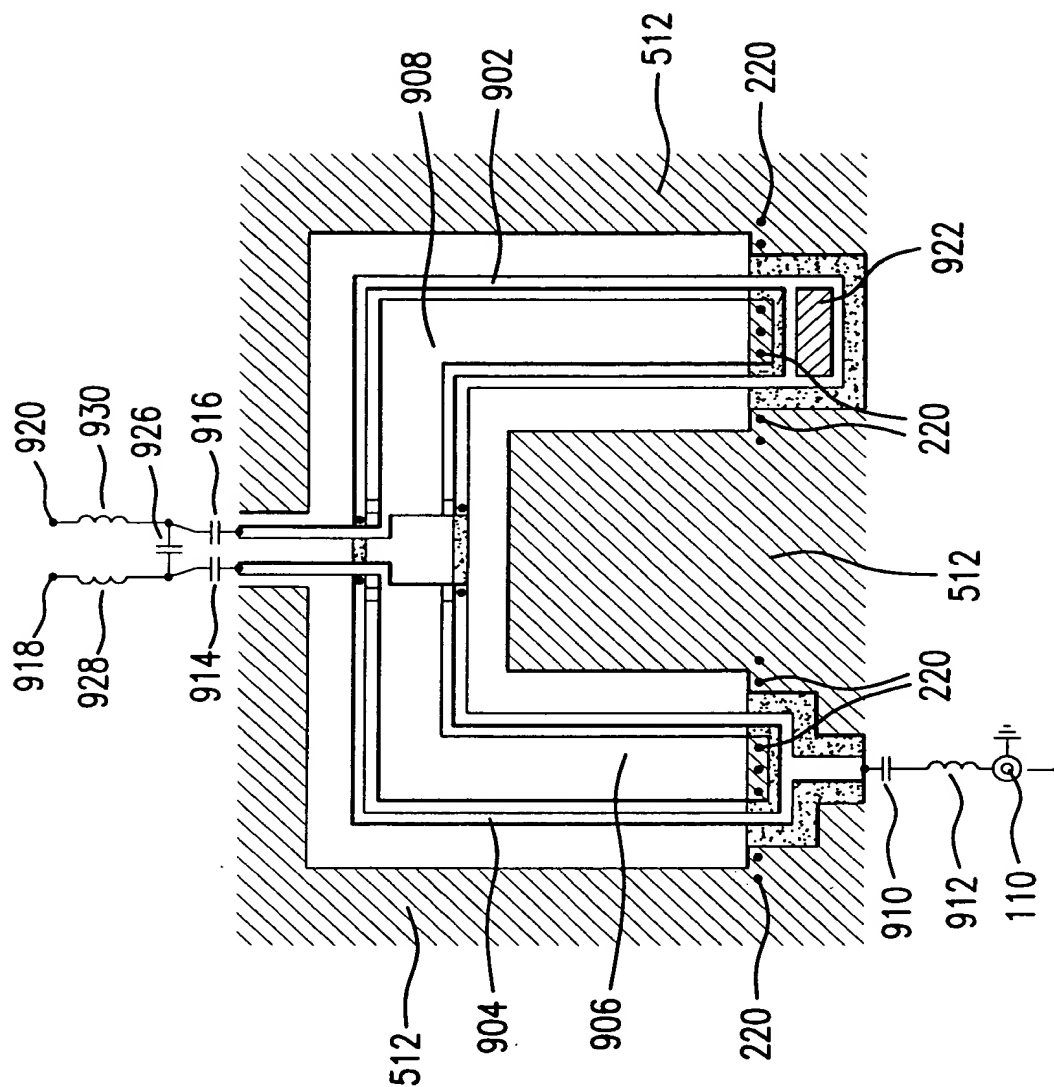
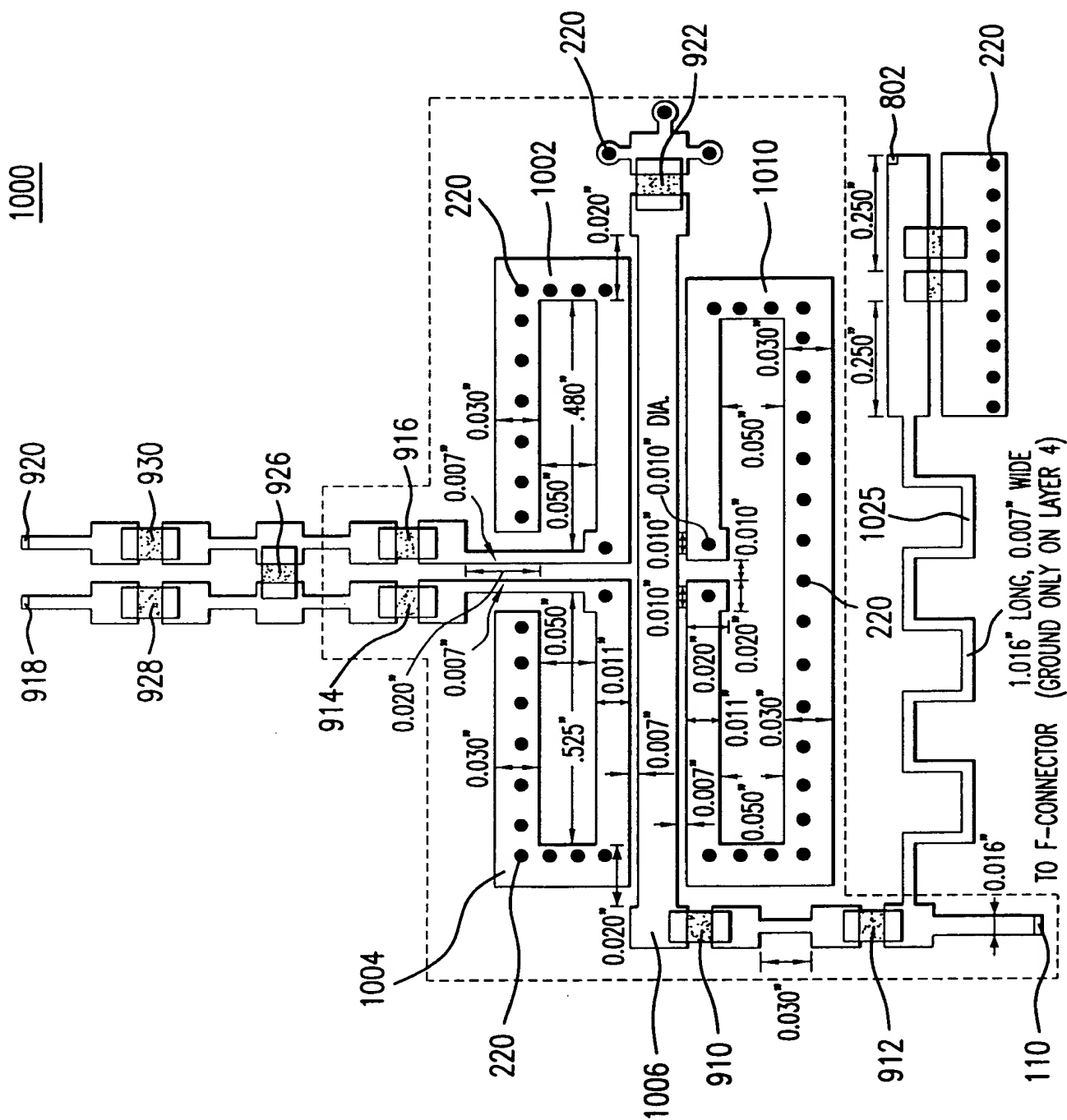
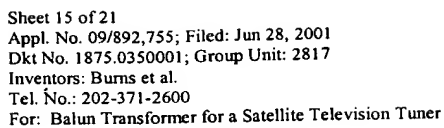
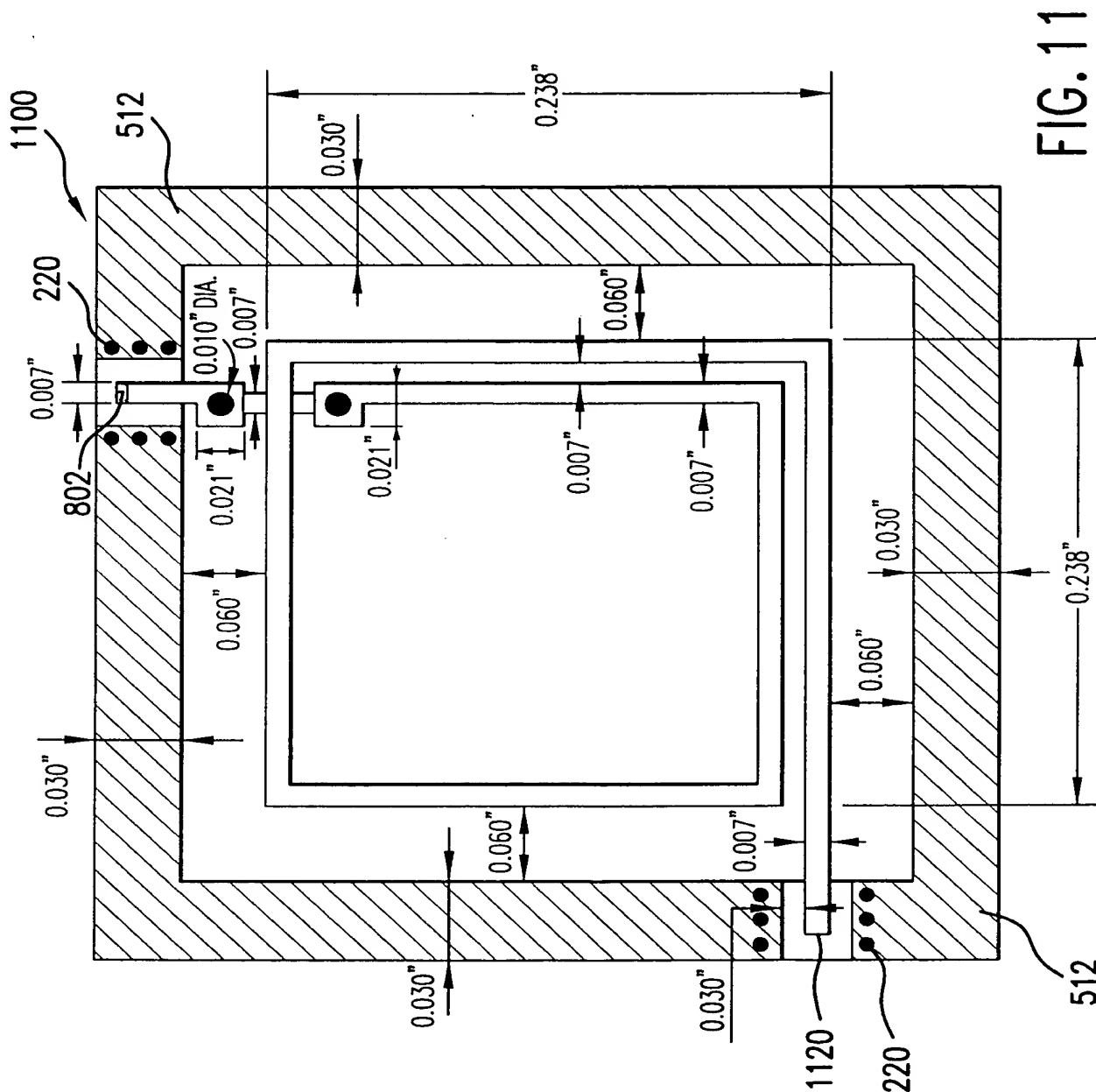
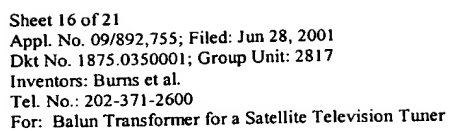


FIG. 9





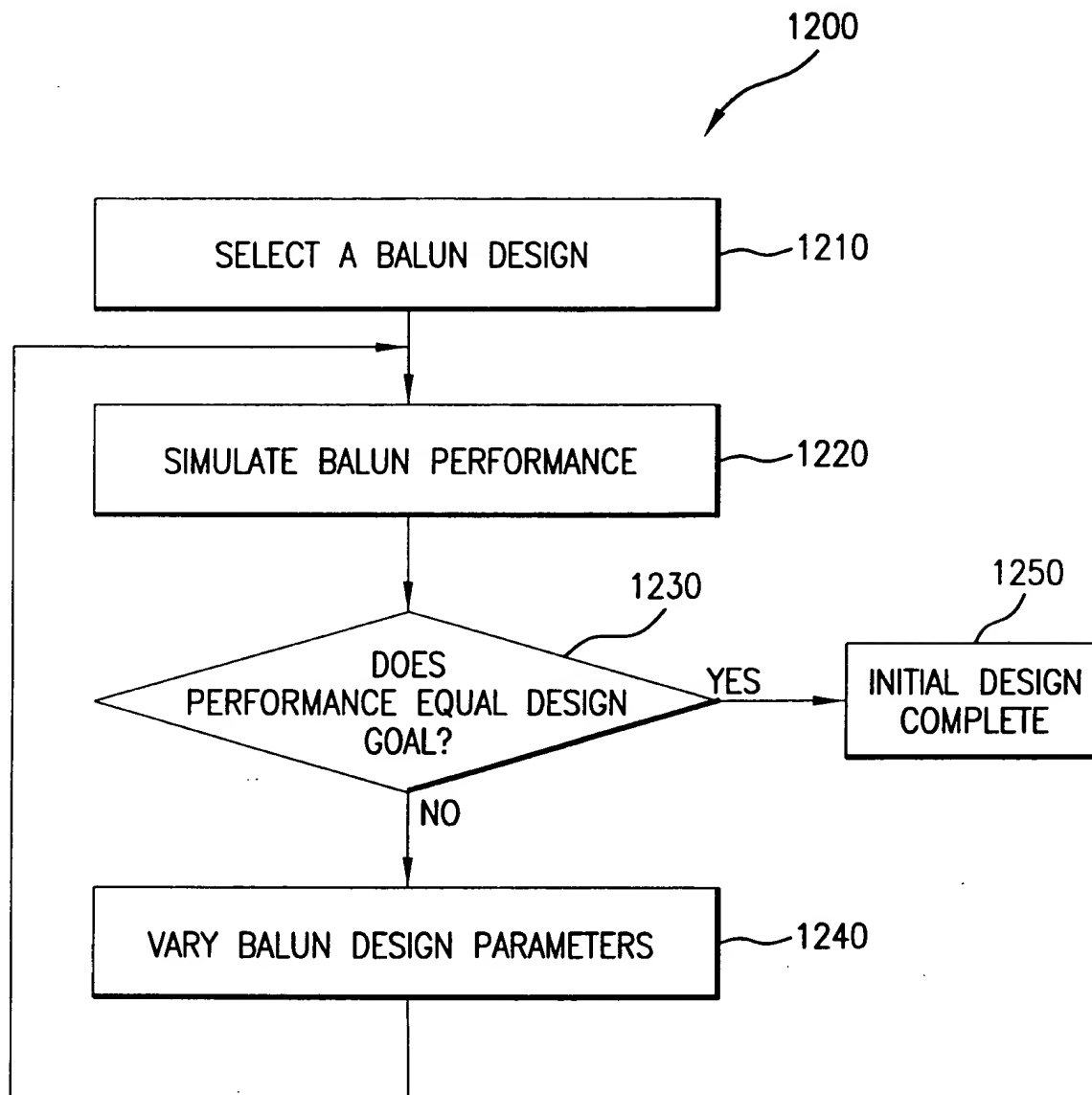


FIG. 12

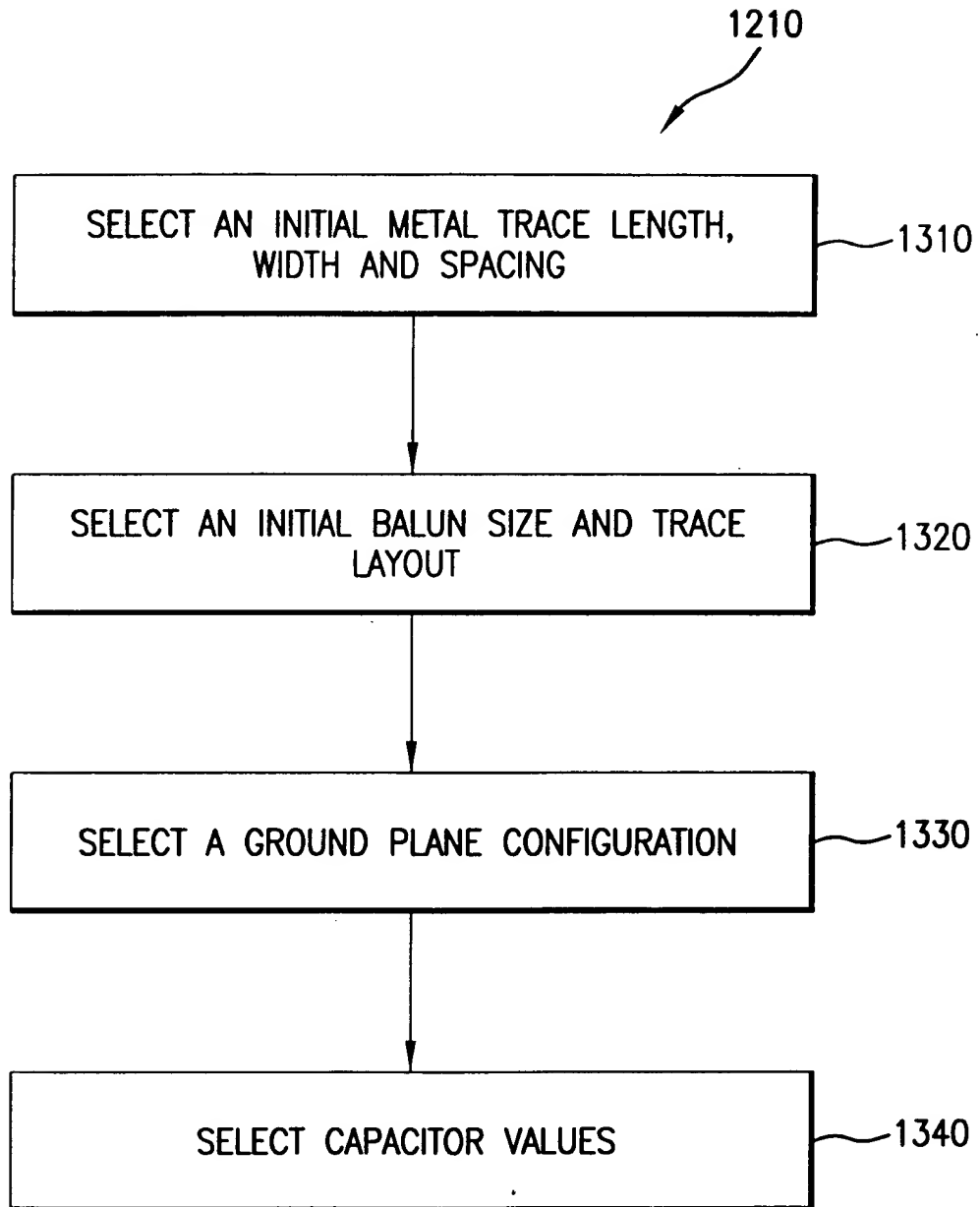


FIG. 13

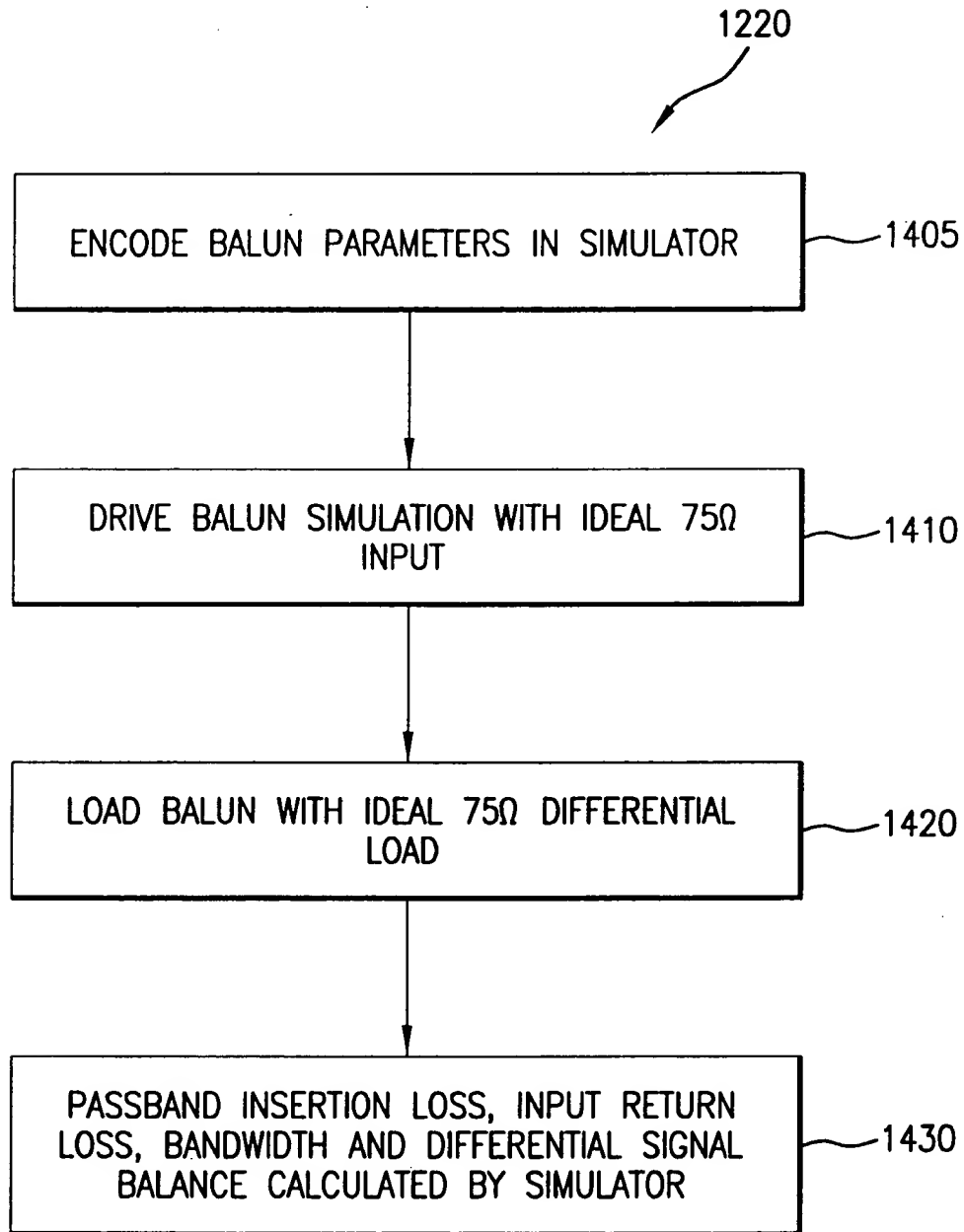


FIG. 14

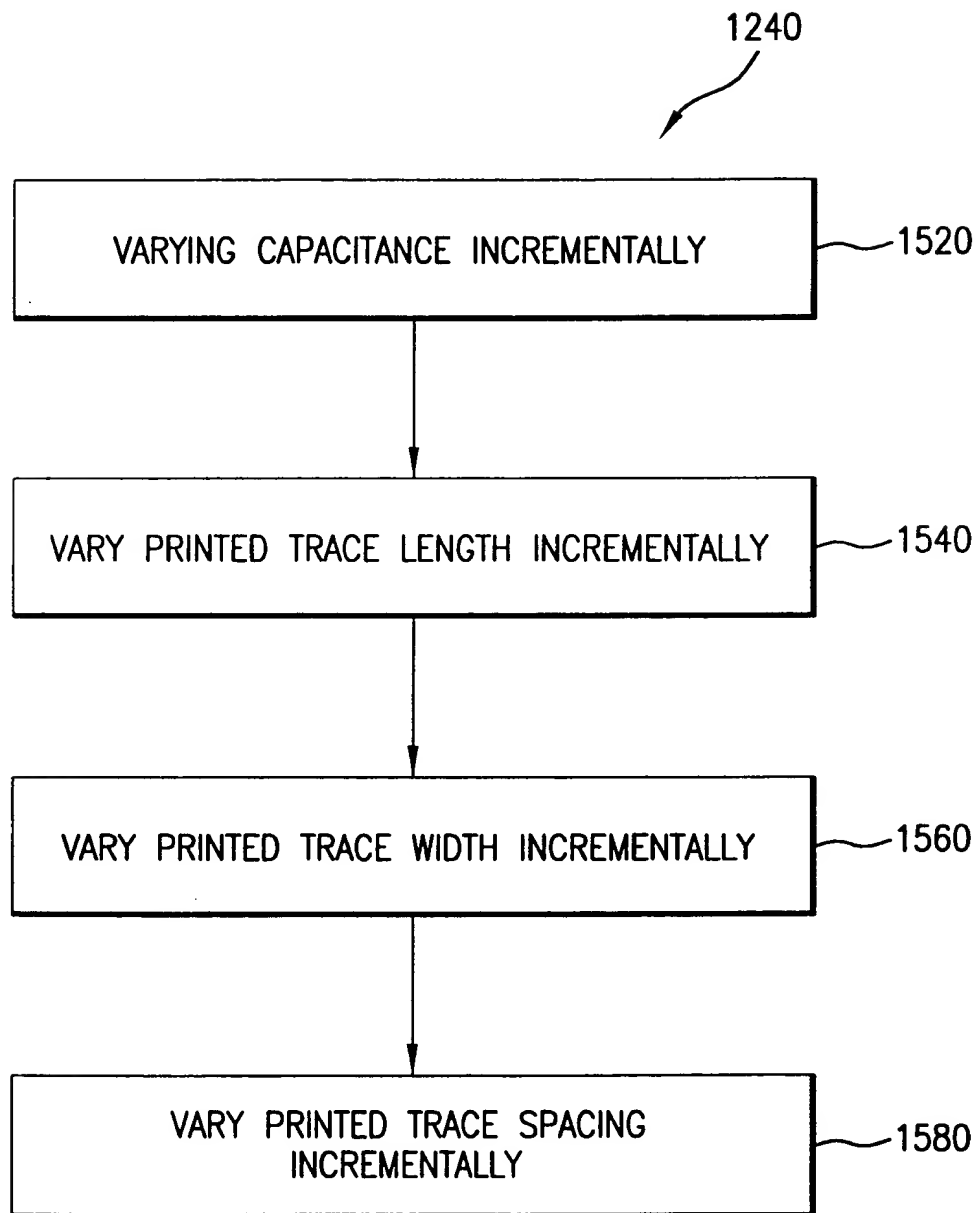


FIG. 15

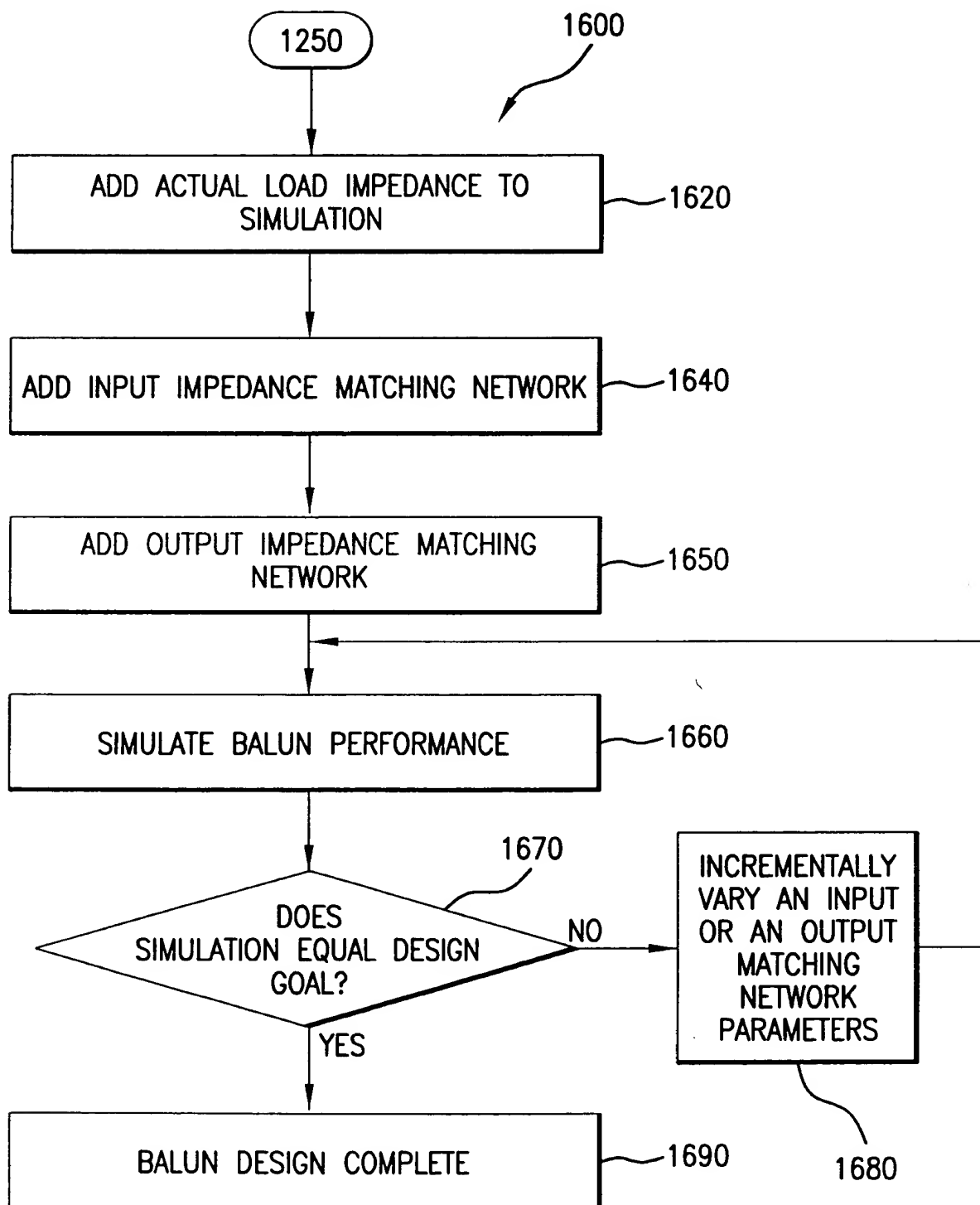


FIG. 16